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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/751,270	12/30/2003	Saikumar Jayaraman	884.888US1	7480		
59796	7590	04/03/2009	EXAMINER			
INTEL CORPORATION c/o CPA Global P.O. BOX 52050 MINNEAPOLIS, MN 55402				LIGHTFOOT, ELENA TSOY		
ART UNIT		PAPER NUMBER				
1792						
MAIL DATE		DELIVERY MODE				
04/03/2009		PAPER				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/751,270	JAYARAMAN, SAIKUMAR	
	Examiner	Art Unit	
	Elena Tsoy Lightfoot	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 January 2009.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-12, 14-24 and 31-36 is/are pending in the application.
 4a) Of the above claim(s) 21-24 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-12, 14-20 and 31-36 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 30 December 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____ .

Response to Amendment

Amendment filed on January 27, 2009 has been entered. Claims 1-12, 14-24, and 31-36 are pending in the application. Claims 21-24 are withdrawn from consideration as directed to a non-elected invention.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 5, 7, 10-12, 14, 15, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al in view of West et al (US 4828965), further in view of Suda et al (US 4731855) and Kamieniecki et al (US 5661408) for the reasons of record set forth in the previous Office Action.

Note that an *inadvertent typographical* error has occurred in the previous Office Action: the Examiner's statement "Jacobson et al is applied here for the same reasons as set forth in paragraph 8 of the Office Action mailed on 7/26/2007" should read "Jacobson et al is applied here for the same reasons as set forth in paragraph 8 of the Office Action mailed on 7/26/2006".

3. Claims 1, 2, 4-12, 14-20, and 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter (US 6,730,617) in view of Suda et al and Kamieniecki et al for the reasons of record set forth in paragraph 5 of the Office Action mailed on 10/09/2007.

4. Claims 3, 6, 20, 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al in view of West et al, further in view of Suda et al and Kamieniecki et al, as applied above, and further in view of Bulthaup et al (US 6,936,181) for the reasons of record set forth in paragraph 10 of the Office Action mailed on 7/27/2006.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al in view of West et al, further in view of Suda et al and Kamieniecki et al, or over Carter in view of Suda et al and Kamieniecki et al, as applied above, and further in view of Walter et al (US

4,099,913) for the reasons of record set forth in paragraph 9 of the Office Action mailed on 7/27/2006.

6. Claims 6, 8, 9, 16, 20, 31-32, and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al in view of West et al, further in view of Suda et al and Kamieniecki et al, as applied above, and further in view of Carter for the reasons of record set forth in paragraph 12 of the Office Action mailed on 7/27/2006.

Response to Arguments

7. Applicant's arguments filed January 27, 2009 have been fully considered but they are not persuasive.

§103 Rejection of the Claims

Jacobson et al in view of West in view of Suda et al. and Kamieniecki et al.

Applicant requests resetting the period to respond because Applicants could not find Office Action of that mailing date 7/26/2007 as stated by the Examiner (“Jacobson et al is applied here for the same reasons as set forth in paragraph 8 of the Office Action mailed on 7/26/2007”). Since the Applicant could not find Office Action of that mailing date the Applicant believes this communication is therefore indeterminate and incomplete and the Applicant requests clarification including resetting the period to respond after clarification by the Office.

However, the Examiner denies the Applicants request for resetting the period to respond for the following reasons:

- (i) it was clear from the Office Action as a whole that an *inadvertent typographical* error had occurred in the date “7/26/2007”. Since the Examiner referred to the date “7/26/2006” throughout the Office Action, it was clear that the date “7/26/2007” should read as “7/26/2006”;
- (ii) the **exact** date of the *previous* Office Action related to Jacobson et al was not critically important because the Examiner used the **same ground** of rejection over Jacobson et al over and over again in **all previous** Office Actions. Therefore, the **inadvertent typographical error in the date “7/26/2007” could not change either ground of rejection or any points in Examiner's position.**

Therefore, the Examiner believes that the communication was not indeterminate as based on mere *typographical* error made by the Examiner, and, thus, the Applicants' request for resetting the period to respond is denied.

Carter in view of Suda et al. and Kamieniecki et al.

The Office asserts the previous amendments "do not change the scope of the claimed invention." The Applicant disagrees, and believes that "substrate" is broader than "PWB". The Applicant believes therefore the scope of the claimed invention is changed. Withdrawal of the rejection is respectfully requested.

The Examiner agrees with Applicants that "substrate" is broader than "PWB". However, the rejection cannot be withdrawn on this basis because the Examiner stated in the previous Office action that Carter in view of Suda et al and Kamieniecki et al was applied for the reasons of record set forth in paragraph 5 of the Office Action mailed on 10/09/2007. As stated in paragraph 5 of the Office Action, Carter uses silicon wafer as a substrate for forming integrated circuit board. Therefore, "PWB" was addressed in the Office Action mailed on 10/09/2007.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy Lightfoot, Ph.D.
Primary Examiner
Art Unit 1792

April 4, 2009

/Elena Tsoy Lightfoot/